Name: HW12 On This Day in Math

*Ms. Estrada, Mr. Bielmeier, Mr. Tiénou-Gustafson*

Geometry, Period

Due Date: ***Mon***, 15 Sep 2014

**Geometry**

**Homework**



**On This Day in Math - September 11**

<http://pballew.blogspot.com/2012/09/on-this-day-in-math-september-11.html>

“Wehave already considered with disfavour the possibility of the universe having been planned by a biologist or an engineer; from the intrinsic evidence of his creation, the Great Architect of the Universe now begins to appear as a pure mathematician.~Sir James Jeans  
  
The 255th day of the year; 255= 28-1 and is the fourth Mersene number that is not a prime.   
255 is a also a repdigit [repeating digit] in base 2 (11111111) in base 4 (3333), and in base 16 (FF).

*John D Cook has a*[*nice overview of Mersene Numbers and Mersene Primes*](http://www.johndcook.com/blog/2011/09/09/five-interesting-things-about-mersenne-primes/)  if you’re ***really*** feeling nerdy.

***Challenge*** *(optional): What is the next number that is a repdigit in base 2 and base 4?*

EVENTS on This Day in Math

**In 1831**, Charles Darwin and Captain Robert Fitzroy traveled from London to Plymouth to inspect the Beagle. This was Darwin's first sight of the ship on which he would sail on a voyage of discovery leading to his famous theory of evolution.

**In 1981** NBC Magazine broadcasts a story about Rubik's cube on TV. The cube had begun production in 1977 in Hungary and after a couple of years began to sweep across Europe. In 1981, the rage hit the US. In November of 1981, the US would hold 1st American Rubik's Cube Championships. \*Mark Longridge, A Rubik's Cube Chronology

**1789** Alexander Hamilton appointed the ﬁrst secretary of the U.S. Treasury. It is because of him that we did not adopt the English system of counting money, but a decimal system instead. [England at that time had a system of 12 pence to the shilling and 20 shillings to the pound. Instead of dollars and cents that can be written in decimal form, such as $12.06 for twelve dollars and six cents, they needed three numbers. For example, £12 10s. 6d. stood for twelve pounds, ten shillings and sixpence.]

***Math Problem 1:*** *Use the conversion above to determine how many pence are in a pound. Express this mathematically by using the standard variables of* ***s*** *for shillings,* ***d*** *for pence, and* **£** for pounds.

***Math Problem 2:*** *In 1937, $5 (USD, or US dollars) equaled £1 (British pounds). Based on the conversion above, how much would* ***£12 10s. 6d.*** *have equalled in USD?* ***Show your work!***

[](http://www.scholastic.com/math)

# Growing Up After 9/11

## Teen Brook Peters used math to make a movie

## about his September 11 experiences.

By [Jack Silbert](http://www.scholastic.com/browse/contributor.jsp?id=3583) Brook visits the firehouse he knew as a little boy. (Jason Tanaka Blaney)

September 10, 2001, was Brook Peters’s first day of kindergarten in downtown New York City. On his second day, the world changed. September 11 will always be remembered for the terrorist attacks against the United States, including the destruction of New York’s World Trade Center, killing nearly 3,000 people.

Now, 10 years later, 14-year-old Brook has made a movie about that day and its after-effects. “I wanted to share a story about what happened to the schools, what happened to the teachers, what happened to the students,” Brook told *MATH*.

Brook, age 3. (Adam Aronson)

For Brook’s movie, *The Second Day*, he interviewed many of these people. They share memories, and the fears and concerns they had. Schools near the attack site were temporarily closed, so students and teachers had to adjust to many changes while they coped with the tragedy.

The movie also deals with the firefighters Brook grew up around. (His mom has done volunteer work for the New York City Fire Department.) Eleven brave firefighters from the Engine 24/Ladder 5 firehouse—where young Brook had spent much time—lost their lives on that terrible day.

A decade after, kids have grown up, and New York carries on. Brook’s movie helps keep the memories alive.

[This article originally appeared in the September 5, 2011 edition of *MATH* magazine.](http://www.scholastic.com/math)

***Comprehension Questions***: Always answer in complete sentences!

1. How old were you on September 11, 2001? Where were you living? (If you were not alive, answer for someone significant to you, such as a parent.)
2. Share one story that you’ve heard from family, friends, or teachers about September 11.
3. Why is it important to remember September 11?
4. If you could make a movie in 10 years about an important event that happened during your childhood to date, what event would you choose and why?